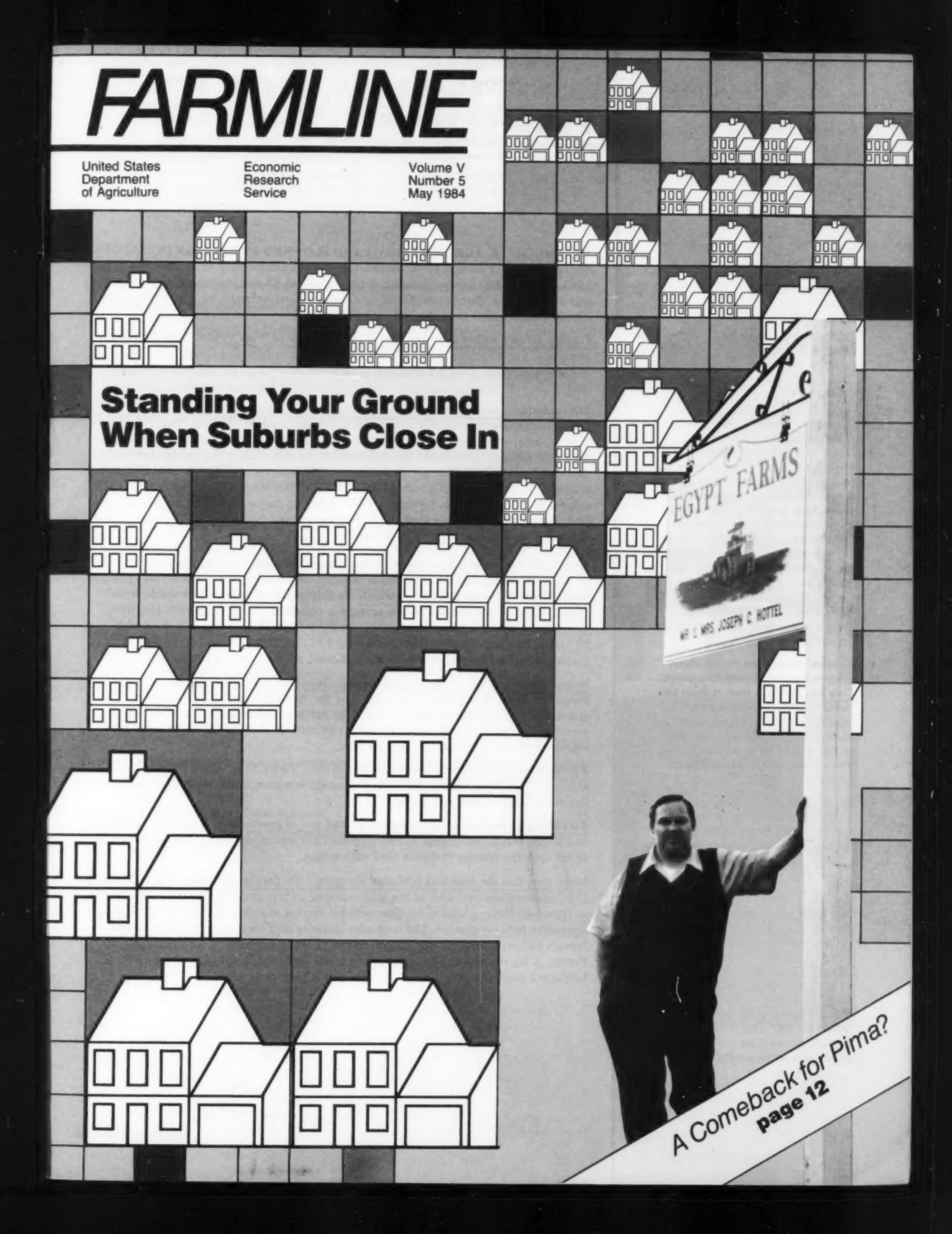
FARMLINE

United States Department of Agriculture

Economic Research Service

Volume V
Number 5
May 1984

Standing Your Ground When Suburbs Close In



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FARMLINE is published 11 times a year by USDA's Economic Research Service. Subscription price is $16 a year to U.S. addresses ($20 foreign). Order from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Ask for *FARMLINE* magazine, and make checks payable to Superintendent of Documents. For faster service, call (202) 783-3238 and charge your subscription to your MasterCard or Visa.

Renewal notices are mailed about 90 days before subscriptions expire. Only one notice is sent. It must be returned promptly to ensure uninterrupted service. Check your mailing label to find out how many issues remain on your subscription. You should receive a renewal card before ISSDUE002.

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The Secretary of Agriculture has determined that publication of this periodical is necessary in the transaction of public business required by law of this Department. Use of funds for printing *FARMLINE* has been approved by the Office of Management and Budget through March 31, 1987. Use of commercial or trade names does not imply approval or endorsement by USDA.

PERSPECTIVES

HOW MUCH U.S. AGRICULTURAL LAND IS OWNED BY FOREIGN INVESTORS? The answer: 13.7 million acres, according to USDA's latest tally as of December 31, 1983. Nearly 8,500 foreign investors from more than 80 nations reported some holdings of forestland, pasture, cropland, or other U.S. agricultural land. The 1983 figure is 279,000 acres higher than the 1982 total.

Foreign acreage would take up most of the land area of West Virginia if it were all in one place. But it's spread among 49 states, plus Puerto Rico and Guam. For the nation as a whole, foreign investors hold just a tad more than 1% of all privately owned ag land.

The quantity is too small to have any impact on U.S. agriculture at the national level, but communities in areas of heaviest concentration could be affected. That's the judgment of attorney Peter DeBraal and economist Alex Majchrowicz of the Economic Research Service. DeBraal and Majchrowicz review and analyze the foreign investment data. Since early 1979, foreign owners have been required to report their holdings, acquisitions, and dispositions of ag land to USDA. The reports have largely put to rest some earlier concerns that foreigners were buying up major chunks of American farmland. Farmland was a particularly attractive investment during the 1970's when values climbed at an average rate of 13% a year.

Maine claims the most foreign-owned land—some 2.7 million acres. That's close to 20% of the U.S. total. Almost all the Maine holdings are titled to three large timber companies, and two are U.S. companies which are only partly foreign owned. Aside from Maine, most of the foreign-owned acreage is concentrated in the South and West. Georgia, for example, is second, with 1.1 million foreign acres. Texas is third with 927,000 acres, and California is fourth with 914,000. Rhode Island is the only state that attracted no foreign investment in ag land.

Nearly three-fourths of the foreign landholdings are traced to Canada, the United Kingdom, Hong Kong, West Germany, and the Netherlands Antilles. However, the country of registry doesn't always reveal the nationalities of investors. Some investments are funneled through corporations registered in so-called tax haven countries where investors' identities can be concealed.

Among the surprises on the list of investors: nine from China, with a total of 2,028 U.S. acres; two from the USSR, with 835 acres; two from Cuba, with 20 acres; and five from Syria, with 5,011 acres.

Foreigners do not appear to be taking ag land out of production, according to DeBraal and Majchrowicz. No change in intended land use was reported for 92% of the acreage at the time the foreign investors filed with USDA.

Note, too, that the numbers probably exaggerate the foreign presence. The fact is that U.S. corporations own 63% of the land reported as foreign-held. The law requires them to report all their ag land as foreign owned if foreign shareholders have a 5% or greater interest in the corporation. The total also includes land owned jointly by U.S. and foreign partners. Roughly 1.3 million of the 13.7 million acres fit into this category. Finally, a big share of the foreign acreage is not farmland in the strict sense—57% is forestland and only 14% is cropland. The rest is pasture or other land.

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Practical economic intelligence from USDA's Economic Research Service

FEATURES

Strategies for Preserving Farmland *by Ellen Banker* 4

The most threatened farms in the nation may be those in the shadow of suburbia. Development can bring rising taxes, land speculation, and the loss of local farm suppliers. However, states and farm communities worried about metro spillover are drawing on a mixed arsenal of old and new strategies to make their own decisions about how much development they want.

Enough Land To Go Around? *by Ellen Banker* 7

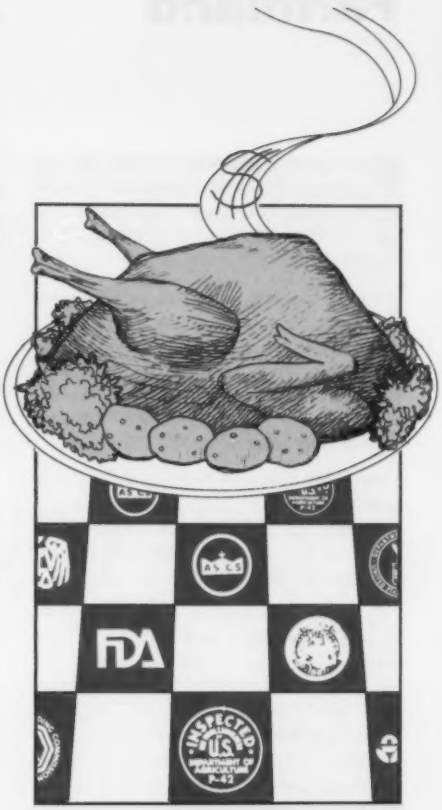
Cropland takes about a fifth of America's land, pastures and ranges about a fourth, and forestland about a third. These shares have remained fairly steady, despite significant regional shifts. Agriculture will continue to lose some acreage to competing demands, but land is not expected to be an obstacle to meeting future U.S. food needs.

Costing Out Federal Regulation: Let's Talk Turkey *by Doug Martinez* 9

A typical turkey dinner costs a few extra pennies a pound because of federal regulations and policies ranging from required inspections to the payment of taxes. Noting that regulations evolved from a perceived need and carry benefits as well as costs, economist Harold Jones adds up the price of different regulations in the production and marketing of turkeys.

New Markets Give Pima Cotton a Boost *by Ellen Banker* 12

Pima, the luxurious cotton, may be back in the fray. After years of losing sales to synthetics and more widely grown upland cotton, pima products are again competing for consumer dollars. The reasons: new markets for pima and an improving economy.



DEPARTMENTS

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Strategies for Preserving Farmland

Farmland preservation. The words sound "apple-pie American." After all, who wouldn't want to preserve our agricultural abundance and agrarian roots?

If you're looking for a reason, however, don't cite food production alone. There is no consensus among economists, scientists, and other researchers that future generations will actually "need" additional farmland for future crop and livestock production.

Then, why preserve farmland? That's a question we can't answer with existing data, according to William Anderson, a land use analyst with USDA's Economic Research Service.

"The fact is," Anderson says, "farmland preservation has been a grass roots movement in this country for at least 50 years. Rural zoning was the first technique used. Now, methods such as preferential assessments, agricultural districts, and agricultural easement programs are becoming common."

There are no sociological studies identifying the precise reasons Americans in virtually every region of the country support farmland preservation. But we do have something else that can measure the interest: laws.

So far, 48 states have legislated some form of farmland protection. "Even in the late 1960's and early 1970's, when we had tremendous crop surpluses and cropland set-aside programs, at least half the states had farmland protection laws," Anderson says. Some areas have been more active than others, usually in response to approaching development.

A Look at Loudoun

As an example, take a look at Loudoun County, Virginia. Loudoun has had a county planning staff for more than 10 years and a zoning board since the 1940's. The county's proximity to Washington, D.C., is probably the primary reason its residents have considered planned development important. Metro spillover has given the predominantly rural county a dual identity.

So far, 48 states have legislated some form of farmland protection.

In the county's western flank, you find yourself in the foothills of the Blue Ridge Mountains in obviously rural, farming communities. There are several historic towns in this part of the county: Leesburg, the county seat; Middleburg, the hub of Virginia's fashionable hunt country; and Waterford, a tiny isolated village of 17th century origins.

But the eastern end of Loudoun County —within 20 miles or so of the nation's capital—offers a striking contrast. Here, population density makes its mark on both housing and commercial development. There's Dulles International Airport, which serves the Washington metro area, and Sterling Park, the county's major suburban community.

Sterling Park is an unincorporated area that has grown dramatically since it was first developed in the early 1960's. By 1970, Sterling's population, added to the rest of the county's, qualified Loudoun as part of the Washington, D.C., metropolitan area, according to the U.S. Census Bureau. And, since then, the county's population has almost doubled. Now, just about half the county's 60,000 residents live in Sterling Park and Leesburg, combined.

Even so, Loudoun still has an essentially rural character. About two-thirds of the county's acreage is farmed. Loudoun ranks among the top 10 agricultural counties in Virginia. Statewide in 1983, the county was second in corn production and fifth in cattle.

Impressive as this may be, many Loudoun residents believe the county's rural image is threatened by impending development.

The Shadow of Suburbia

The most jeopardized farms in the nation are those—like many in Loudoun—that are located in what some rural planners call "the shadow of suburbia." The major problem is one of land values as open land comes to be worth more as a potential subdivision than as a farm.

The average value of land used for farming in Loudoun is $2,000 an acre, according to county land assessment records. Near Leesburg, the value approaches $5,000 an acre. In the county's already-developed eastern tip, the figure jumps to $10,000 an acre.

Inflated land values put farmers in a

Ask Joe Hottel

Just ask Joe Hottel. He'll tell you how important land-use taxes have been to his farming operation.

"It's simple. I couldn't farm right now without them," says Hottel, who grows mostly soybeans, corn, and wheat on about 8,000 acres in three Virginia counties, including Loudoun where he's lived all his life.

For Hottel, land-use taxation is critical. He owns only 543 acres of the land he farms, renting the rest from 43 landowners, eight or 10 of whom are nonfarmers who may have intentions of selling or developing the land at some point in the future.

Because land-use assessments lower the taxes on farmland, Hottel benefits twice. He pays land-use taxes on his own acreage, and he can rent additional acreage for about $40 an acre because his landlords are paying land-use taxes too. Without the lower assessment, the owners would raise the rental prices, probably to $60 or more an acre, according to Hottel.

The average farmland acre in western Loudoun has a fair market value of about $2,000, but may produce only about $500 a year worth of corn or soybeans or whatever is grown on it. "Higher rents and taxes could drive many of Loudoun's farmers out of business," Hottel says.

Loudoun County's land-use taxation program was started in 1973, shortly after the Virginia state legislature passed the enabling legislation. Virginia is one of the few states that provide use-value land assessments without requiring some landowner commitment not to develop the land.

For farmers with hundreds of acres, the tax savings from the use tax can be substantial. For a 300-acre farm, taxes on the fair market value ($2,000 an acre) at the current real estate tax rate of $1.13 per $100 would amount to $6,780, based on an assessed value of $600,000.

At use-value, however, the farm would be assessed at $120,000. Using the same tax rate, the farmer would pay only $1,356—a savings of $5,424. The farmer continues to save that much money each year as long as the land qualifies for the program.

In Loudoun, the use-value taxation program has been popular. Of the county's estimated 228,000 acres of farmland, some 208,000 were assessed under the program in 1980, according to county planner Milton Herd.

Herd estimates that about 30 percent of the land is owned by absentee landlords. He also says that about 38 percent of all Loudoun's farmland is "leased" to farmers by individuals who may have plans to develop or sell the land at some point.

There is considerable support for use-value taxation in the county, Herd says, because it provides tax breaks for farmers and because it has opened up absentee-owned land for farming. But just about everyone acknowledges that land-use programs are not perfect: Sometimes land speculators get the tax breaks intended for farmers.

bind. "Even those who have the best intentions to continue farming may eventually sell," says USDA's Anderson.

"If farmers perceive that development is inevitable," Anderson says, "they'll stop investing money in farming and wait for a chance to sell, especially if other farmers in the area are selling out."

Those who hold onto their farms may find it's a hard row to hoe. "Incompatible is one way to describe most side-by-side housing developments and farms," Anderson says. Farmers who try to stick it out as development builds up around them generally face a variety of problems, including rising taxes, land speculation, laws that inhibit necessary agricultural practices, and higher labor costs as nonfarm employers bring additional jobs to the area. Farmers may also face the loss of some agricultural support industries, such as the local feed store, to greener pastures and stronger markets.

However, there are techniques that help communities to preserve their agricultural character and may even allow farmland owners to realize the equity values of their properties without turning farmland into compressed housing areas.

Preserving Farmland

Robert Boxley, a natural resource economist with USDA's Economic Research Service, outlines several farmland preservation strategies. Zoning is commonly used. Many localities zone for agriculture, just as their urban counterparts zone for commercial, in-

dustrial, and residential areas. Specific agricultural districts, with minimum acreage requirements, have been used throughout the country.

Special taxation for agricultural land, first used in the late 1950's, is gaining widespread acceptance today. The benefit: Farmers and other qualified landowners get a tax deferral because their land is assessed at its "use" value, rather than its fair market value. They are often required to keep the land in agriculture for a specified period or face repayment of back taxes with a penalty.

Another concept that's gaining popularity is the use of "agricultural conservation easements." In some states, farmers can sell the development rights of their farmland to the state government. The state pays the farmer the difference between the land's agricultural and development values, and the farmer grants an agricultural easement, usually in perpetuity, to the state. The easement goes with the land. If the property is resold, the new owner gets the farmland minus development rights.

The practice of leasing development rights has also surfaced in some areas; the leasor is most likely to be a local government or a private trust. Thus, in some cases, the farmer can sell or lease the land's development value without selling the land for development. In 1974, Suffolk County, N.Y., was the first governmental body to purchase development rights.

Boxley cautions, however, that in-perpetuity easements and other restrictions may be as difficult to reverse as physical use conversions, such as the construction of shopping centers or subdivisions. "Permanent farmland," he says, "may be just as undesirable to some future society as current development appears to be today."

There are no easy solutions, Boxley says, but he favors "reversible" alternative uses for farmland.

The TDR Option

A controversial, but fairly recent addition to the arsenal of farmland preservation practices is the use of transferable development rights, or TDRs. Adopted by relatively few localities so far, TDRs have probably been most widely used in Montgomery County, Md., another county just outside Washington, D.C.

Melissa Banach, a Montgomery County land planner, explains: Basically, TDRs place conservation easements on farmland in exchange for additional population density in designated growth or "receiving" areas.

Banach stresses the importance of a master plan in identifying agricultural areas and suburban or urban growth areas. "Perhaps the biggest problem is the designation of the receiving areas," she says. "There can be resistance to increased density."

Once Montgomery's planning board had worked out the details of the county's master plan, the TDR program was implemented in 1981. First, the county rezoned much of its farmland into an "agricultural reserve." The reserve zoning permits only one dwelling for each 25 acres, rather than the earlier zoning of one dwelling per 5 acres. However, "development credits" for the earlier zoning were left with the landowners, who could then sell the credits to developers or speculators for use in the "receiving areas—areas where increased development would be permitted."

Banach says that prices paid for agricultural land in Montgomery County have fallen from a speculative $3,000 an acre to about $900 an acre, now based solely on the land's value for farming. But the landowners really haven't lost anything, she says, because farmers can sell their development rights to make up the difference. And the county has already recorded the transfer of about 600 development rights, covering 3,000 acres.

Montgomery's success has been carefully studied in nearby Loudoun. For over a year, a group of citizens have been meeting with county representatives to draft a plan which they hope will save Loudoun's farmland while allowing new, carefully designed development.

The plan—Loudoun's "Rural Land Management Plan"—has not yet been submitted to the county's board of supervisors who will make the ultimate land-use decisions. Local sentiment is strong for farmland preservation, according to Milton Herd, the county's rural and agricultural planner. Herd feels that many aspects of the new plan will be adopted. If so, landowners will receive more in tax relief and financial rewards as they increase their commitments to preserving rural land from development.

Some of the programs, such as use-value taxation and agricultural districts, were approved several years ago and have worked well, according to Herd. Others, such as cluster developments and leasing conservation easements, are new ideas for the county.

Also proposed is the use of TDRs, but state law in Virginia requires localities adopting such land-use programs to have enabling legislation from the state. The TDR bill that was proposed in Virginia's General Assembly was killed in committee earlier this year, so, for now, Loudoun's TDR question appears to be on hold.

Other counties facing similar development questions may want to consider these strategies for preserving their farmland. "Maybe it has something to do with ideals or pride, or it's simply something the American people want to do," says USDA's Anderson. □

[Based on numerous sources, but especially on information provided by William D. Anderson and Robert Boxley of the Natural Resource Economics Division, Economic Research Service.]

Enough Land To Go Around?

The United States is the fourth largest nation on earth, with 2¼ billion acres of land. Although all that land breaks down to just 10 acres per person, most Americans live in relatively small spaces clustered around urban areas.

According to Census Bureau figures, 74 percent of the U.S. population lived on only 2 percent of the land in 1980.

How do we use most of our land?

When broadly classified, the way land is used in the United States has not changed very much since 1950. Cropland takes about a fifth of the land, grassland pasture and range about a fourth, and forestland about a third. Wasteland, parks, and built-up areas occupy the rest.

USDA geographer H. Thomas Frey cites results of the 1978 Census of Agriculture and other sources to provide acreage figures for a variety of land classifications. Frey says the largest slice—about 55 percent—is used for agricultural purposes.

This includes 1978's cropland acreage total of 471 million acres, which Frey breaks down into subcategories: cropland used for crops, 369 million acres; idle cropland, 26 million acres; and cropland used for pasture, 76 million acres.

In the category of grassland pasture and range, all 587 million acres are considered agricultural.

Forestland, however, straddles both sides of the fence. Some acres are considered agricultural, some aren't. In Frey's analysis, the dividing line is livestock grazing. Of the total 703 million forestland acres, about 172 million are grazed, so Frey includes them in the agricultural category. The remaining 531 million acres are considered nonagricultural.

The nonagricultural category also includes 197 million acres divided as follows: 47 million in urban uses; 27 million of rural roads, railroads, and airports; 98 million acres used primarily for federal and state parks, wildlife refuges, and other recreational sites; and 25 million acres for military bases and other national defense and nuclear energy purposes.

Finally, 298 million acres of nonagricultural land are "unclassified." This includes marshes, swamps, bare rock areas, desert, and tundra—land that would have a generally low economic value except, perhaps, for mineral extraction.

Predominant land uses vary greatly from region to region. In the Corn Belt and Northern Plains, more than half the land is cropland. In the Southern Plains and Mountain States, pasture and rangeland predominate. In the Northeast, forestland is the major category, as it is in the Appalachian, Southeast, Delta, and Pacific states.

Changes, Trends

"By 1920, most of America's suitable native grassland had been converted to cropland," Frey says. "Since then, the broad categories of land use have tended to change more gradually." There have been changes in land use over the last few decades, he says, but most have been fairly subtle.

The numbers have gone in both directions since 1949. The bottom line is that we now have about the same amount of cropland as we did then.

The 1950's and 1960's saw considerable declines in cropland planted. Between 1949 and 1969, cropland actually used for crops dropped from a record 387 million acres to 333 million. The reason: surplus agricultural production. Much of the land removed from production continued to be classified as cropland, either as rotation pasture or idle cropland.

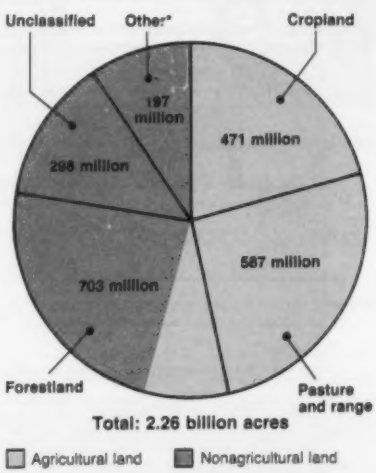
Beginning in the early 1970's, the amount of cropland used for crops trended back up because of steadily increasing export demand. By 1981, planted acreage had climbed to 390 million acres, surpassing 1949's record of 387 million acres.

Most of the increase came from the idle cropland category; some came from pasture and range. As planted cropland increased, pasture and rangeland acreage tended to decrease. Between 1969 and 1978, land in pastures and ranges (including cropland used only for pasture) dropped about 29 million acres.

Forestland also slipped, from 723 million to 703 million. Some of the forestland was cleared for agricultural and urban purposes. Other acreage was reclassified to recreational and wildlife uses.

Frey says that urban and suburban areas probably absorbed less than a million acres a year from 1950 to 1970, and slightly more during the 1970's. Between 1970 and 1980, land in urban uses increased 12 million acres, from

Agricultural Land Covers More Than Half the Country



*Includes land in urban uses; rural roads, railroads, and airports; federal and state parks, wildlife refuges, other recreational sites; and military bases, national defense and nuclear energy sites.

35 million to 47 million. Pastureland, forestland, and wasteland, as well as cropland, were involved.

If changes nationwide haven't been terribly significant, shifts in regional land use have been. USDA economist W. Neill Schaller of the Economic Research Service explains that some substantial regional gains and losses in cropland occurred during the 1950-80 period.

"Two things actually happened," Schaller says. "First, a sizable acreage of less productive land, especially in the Northeast, Southeast, and Appalachia, was either abandoned or converted to other uses. Second, cropland in the relatively more productive parts of the Corn Belt, Delta, and Plains states declined only modestly or even increased as a result of their comparative advantage, improved technology, and public and private investments in irrigation, land clearing, and drainage."

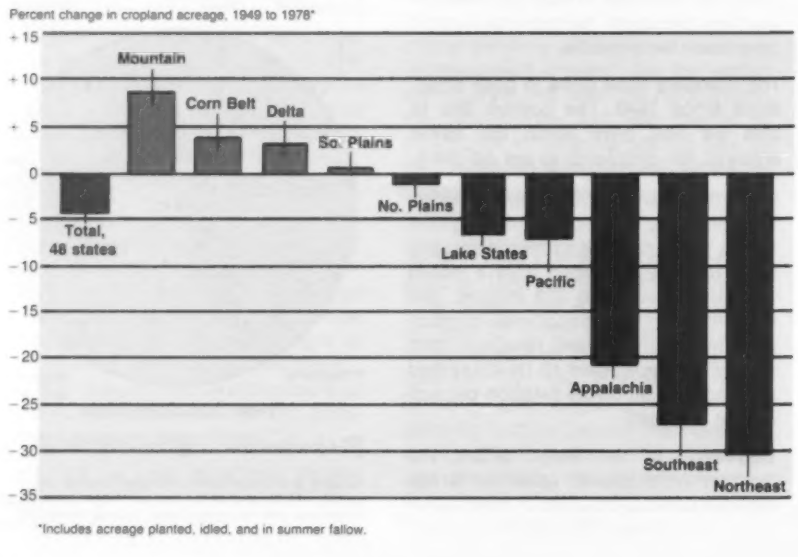
A Look Ahead

Economists agree that there will be some decline in U.S. agricultural land by the year 2000. The majority of the agricultural land lost will go into urban and suburban expansion, including highways and airports. The effect on the land available for agricultural production nationally will be insignificant, Schaller says, but losses could have a major impact in areas where urban growth takes place.

Energy production may also demand more land. How much more? "This question was seldom asked before the 1973 Arab oil embargo," Schaller says. Since then, we have been more aware of our energy needs and our ability to independently meet them.

Some areas will be affected more than others. We have considerable coal reserves, but nearly 40 percent of the coal is located in the Northern Plains and 24 percent each in the Interior and Eastern coal producing regions. "This could conceivably cause local conflicts between agricultural and energy production," Schaller says.

Some Regions Have Experienced a Significant Loss of Cropland



*Includes acreage planted, idled, and in summer fallow.

We now use about the same amount of land for domestic food and fiber production that we used in the 1960's. Yields have kept pace with population growth.

Will this continue to be true?

No one can answer that question with certainty. But USDA economists have analyzed trends in U.S. and world population, land use, and emerging technologies, and have projected our needs to the year 2000. Their conclusion: Land will probably not be an obstacle to meeting our future domestic and export food and fiber needs.

Although the U.S. population is still growing, families are getting smaller and the rate of growth is less than 1 percent a year.

This is a sharp contrast with annual birth rates of 3 and 4 percent in some developing nations, which brings the average worldwide rate of population growth to about 1.7 percent a year. Recent projections indicate that the global population will increase from 1983's 4.65 billion to slightly over 6 billion by the year 2000.

We have the capacity to dramatically increase our production right now, but not the economic incentives to do so, Schaller says. "The combination of available U.S. cropland and technology should be enough insurance."

Although land availability may not be a significant constraint on overall U.S. production, it's apparent that the loss of cropland will have an impact in some areas. The highly productive Corn Belt may gain cropland by the end of the century, while farm acreage in regions such as the Northeast may decline sharply. □

[Based on information provided by geographer H. Thomas Frey, economist W. Neill Schaller, and attorney William D. Anderson of the Natural Resource Economics Division, Economic Research Service.]

Costing Out Federal Regulation: Let's Talk Turkey

A typical turkey dinner with all the trimmings costs a few extra pennies a pound because of federal programs.

Regulations and policies ranging from required inspections to the payment of taxes add about 10.9 cents to each pound of turkey, says economist Harold Jones of USDA's Economic Research Service. That's one-eighth of last year's average price to consumers.

"There's no question that regulations do impose a certain burden, but there are substantial benefits to society as a whole and to particular groups because of them," says Jones, a University of Georgia-based researcher who specializes in the economics of the poultry industry.

He found that a host of federal agencies—and a packet of regulations—cover every step of producing and marketing turkeys in the United States. "Although the turkey industry is not heavily regulated in comparison with other industries, it does reflect the wide variety of rules that affect businesses in this country," Jones says.

"Today's regulations evolved from a perceived need, and new ones are emerging all the time from the changing concerns of our society. Some satisfy safety, health, or environmental demands, such as the required inspections of freshly killed turkeys to ensure that only wholesome birds reach the dinner table."

Some, like the variable freight rates administered by the Interstate Commerce Commission, come under the heading of economic regulation. The purpose may be simply to improve efficiency or to avoid monopoly.

Still others fall into the category of social regulation, which involves the provision of equal employment opportunities and the payment of Social Security and income taxes.

Economic Regulations the Earliest

Economic regulations add an estimated 4.1 cents to the cost of producing and marketing a pound of consumer-ready turkey, Jones says.

Of the three types of government regulation, the economic kind was the earliest, beginning with the Interstate Commerce Commission Act of 1887 that was enacted to regulate the railroads.

The Depression of the 1930's brought additional regulatory programs which remain important today, such as production and price support programs for many agricultural commodities.

A typical turkey dinner includes a few "trimmings" that people never see on their plates.

"Although there are no direct economic controls on production or prices in the turkey industry," Jones says, "other forms of economic regulation affect output."

Specifically, Jones cites price support and production control programs for

feed grains as important influences on expenses for raising turkeys. Feed accounts for nearly 75 percent of the cost of production.

These programs are aimed at stabilizing prices and avoiding severe fluctuations in farm income. The net effect, though, may be a boost in feed grain prices.

Large-scale turkey producers also have to pick up costs associated with minimum wage, unemployment insurance, and workers' compensation.

Small turkey producers are usually exempt from minimum wage and employment standards laws, as well as the rules requiring unemployment insurance and workers' compensation contributions by employers. Small producers, however, are becoming the exception in a big industry that's growing bigger.

"Today's turkey industry consists of 7,200 farms producing 170 million birds annually with a 1982 gross farm income of $1.3 billion," says Jones. "The industry is highly concentrated geographically with production centered in the Midwest, along the East Coast, and in California."

He says more than half of the turkey crop is produced under contract and nearly 30 percent comes from large, owner-integrated operations. "Production operations are closely affiliated with hatcheries, feed mills, and processing plants, creating a highly specialized industry."

Social Regulations

The second group of regulations, the social ones, tack on another 4.1 cents to the costs of producing and marketing turkeys on a ready-to-cook weight basis.

"Social regulation encompasses a wide range of laws to protect the general health and welfare of people and to fund government programs," Jones says. "Most of these laws also

Social regulations add 4 cents a pound to the price of consumer-ready turkey.

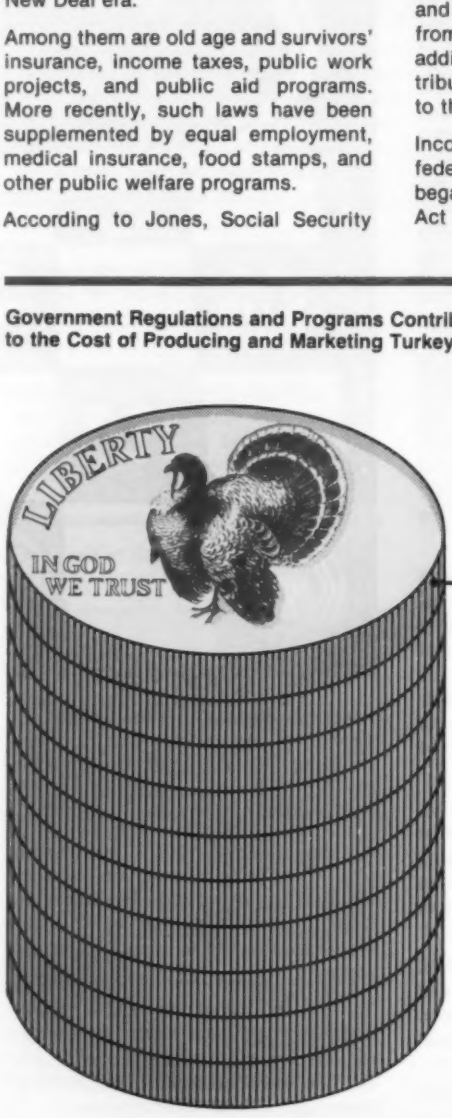
emerged in the 1930's as part of the New Deal era."

Among them are old age and survivors' insurance, income taxes, public work projects, and public aid programs. More recently, such laws have been supplemented by equal employment, medical insurance, food stamps, and other public welfare programs.

According to Jones, Social Security contributions from all sources account for about 1.6 cents of a total estimated labor cost of 12 cents per pound of ready-to-cook turkey. Producers or companies with one or more employees withhold 6.7 percent of cash wages paid to employees (earnings above $35,700 were exempt in 1983) and contribute a matching amount from company revenues to the fund. In addition, self-employed farmers contribute 9.35 percent of their net income to the Social Security system.

Income taxes are another outlay. The federal income tax for individuals began with the passage of the Revenue Act of 1913. Tax rates were low and

Government Regulations and Programs Contribute an Estimated 10.9¢ Per Pound to the Cost of Producing and Marketing Turkeys



deductions were generous. After World War II, tax rates increased, and procedures for withholding taxes from wages were established.

Income taxes paid by the typical producer are equivalent to a little more than half a cent a pound, live weight, of turkey produced.

"Other segments of the industry also pay taxes—feed mills, processors, wholesalers, retailers. If a total net income for the entire production and marketing chain amounts to 8 cents per pound, this would mean an overall tax liability of 2 to 3 cents per pound, ready-to-cook weight."

Environmental and Health Regulations
Finally, the area of environmental, safety, and health regulation adds about 2.7 cents a pound to the cost of producing and marketing turkeys.

Many of these are relatively new laws, added during the 1960's and 1970's in response to concerns about environmental pollution, urban congestion, and scarce resources. "A variety of legislative acts were passed to protect consumer health, safety, and the environment during this period."

Laws in these areas deal with hazardous substances, motor vehicle safety, truth-in-lending, packaging and labeling, environmental pollution, worker safety standards, and residues in meat and poultry.

"The primary impact of environmental protection regulations on the turkey industry involves water pollution control at both the production and processing levels," Jones says. "Capital investment costs for plants that built private treatment facilities in the 1970's ranged from $70,000 to $600,000 per plant, with annual fixed costs of $10,500 to $90,000 or more."

He adds that "operating costs range from $4,200 to $14,000 per year for these systems." Total annual expenditures for water pollution control, therefore, can cost as much as a half-penny a pound, ready-to-cook weight, for turkey processors.

New costs at the plant level include those associated with tougher safety standards.

Worker and Consumer Protection
New costs at the plant level also include those associated with tougher standards for worker safety. The intent of the Labor Department's Occupational Safety and Health Administration is to protect workers from possible hazards. In the case of the turkey industry, such hazards include those related to moving machinery, noise control, feed mill dust, and ladder and fire extinguisher placement.

Consumer protection, specifically food safety, has roots reaching back to the beginning of the century along with a new emphasis that has emerged only in recent years.

The Pure Food and Drug Act of 1906 and the Federal Meat Inspection Act of 1907 brought regulation to what had been considered a "buyer beware" climate of fraudulent and deceptive practices by sellers. These acts prohibited adulteration and misbranding of food and drugs sold in interstate commerce and established sanitary standards and inspection regulations for red meat products sold in interstate and foreign commerce.

"Since poultry meat production did not begin to expand rapidly on a commercial scale until the early 1950's, inspection of poultry products was on a voluntary basis until 1957 when the Poultry Products Inspection Act was passed," Jones explains. "This Act established inspection standards for poultry meat products similar to those for red meat." Condemnations based on federal standards result in 2 of every 100 turkeys being rejected for contamination or disease.

Although the public health benefits are generally acknowledged, inspection regulations "can have substantial effects on processing plant output and costs," according to Jones. Plant layout and equipment changes must be approved by USDA's Food Safety and Inspection Service, and daily sanitation inspections are prescribed.

The federal inspection role would be broadened if proposed changes on net weight labeling and use of food additives are enacted into law. Some proposed changes for meat and poultry products would eliminate free liquids and moisture allowance losses from product net weights. Other suggested changes would restrict the use of nitrates and nitrites as preservatives in meat and poultry products, increasing industry costs because lower refrigeration temperatures would be required in processing and marketing.

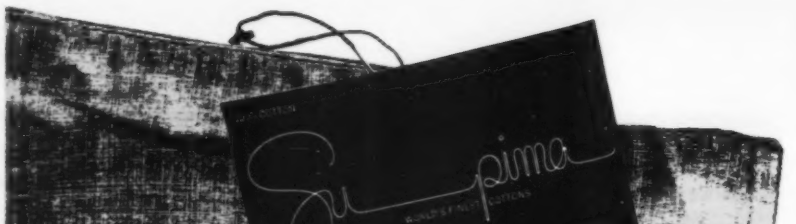
The total tab of federal regulations and policies on ready-to-cook turkeys comes to an estimated 10.9 cents per pound, says Jones. That figure can vary from year to year depending, for example, on such things as fluctuations in the supply, and consequently the price, of feed grains. Regulations by the Interstate Commerce Commission could also create regional differences of as much as 1.9 cents per pound in turkey production costs because of variable shipping rates for grain to different sections of the country.

"So, the net cost impact of government regulations and policies considered in this study," says Jones, "ranges from as low as 6.8 cents to as much as 15.0 cents per pound of turkey."

The 10.9 cents a pound is about 12 percent of the average retail price of turkey last year—91.7 cents per pound. □

[Based on information provided by economist Harold B. Jones, Jr., of the National Economics Division, Economic Research Service.]

New Markets Give Pima Cotton a Boost



Pima, the luxurious cotton, may be back in the fray. After years of losing markets to synthetics and the more widely grown upland cotton, pima products are again competing for consumer dollars.

Measured in bales, pima's use has increased dramatically in the last year. "In the 1982/83 season, pima use reached 56,000 bales. This season, which began last August, its use is expected to be around 70,000 bales, a huge jump," says USDA economist Terry Townsend of the Economic Research Service.

The reasons: new markets and an improving economy.

Major, brand-name manufacturers have recently developed lines of pima and pima-blend towels, sheets, and clothing. "These are nontraditional markets for pima," Townsend says, "and they have offset the decline in the fiber's traditional market—thread—which has fallen off 20 percent since 1982."

"With the new markets, consumption of pima is expected to be up about 27 percent this year," Townsend says, "which will help boost mill use of all cotton by 7 percent." This is a real turnaround from just a few years ago.

In the early 1980's, demand for all textiles was stagnant because of the sluggish world economy. By the 1981/82 season, domestic mill use of cotton—upland and pima—was at its lowest point in 50 years. Manmade fibers suffered too. Polyester production was down about 14 percent that year.

But, as the economy improved, so did the outlook for textiles. "An increase in the demand for cotton is a natural result of an improving economy," Townsend says.

There are two types of cotton grown in the United States: short staple (mostly upland cotton) and long staple (predominantly pima). Just about all the cotton grown here is upland, which accounted for more than 99 percent of the planted acreage in 1983.

"Pima is more of a specialty cotton that's always had very specific uses," Townsend says. Besides thread, military clothing and equipment, particularly during the 1940's and 1950's, and industrial belting have been pima's major markets.

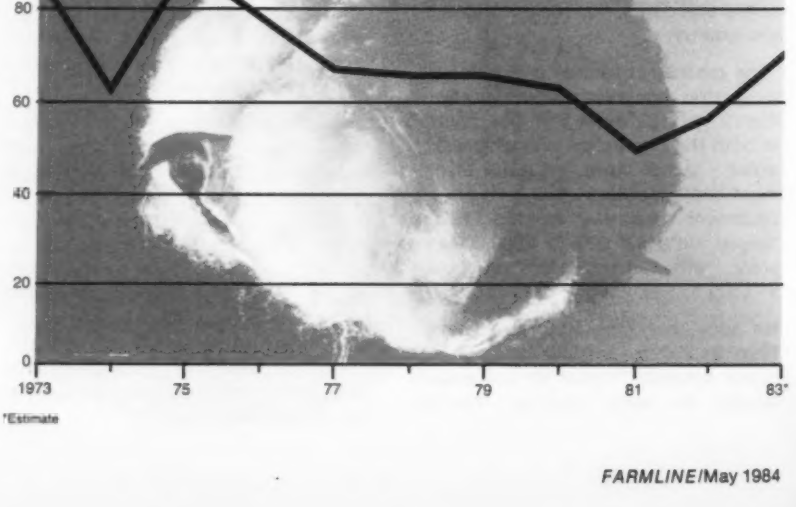
Pima was developed from Egyptian and some Brazilian and Peruvian cotton. It was first grown in the American Southwest in 1917 and named for the Pima Indians in the area. The majority of pima cotton is still grown in this area.

This year's crop will take about 75,000 acres, with almost all of the acreage in Arizona, Texas, and New Mexico.

Length Is the Key

What's the major difference between pima and the more commonly grown

Pima Cotton On the Comeback Trail?



*Estimate

upland variety? In a word: length. Pima is classified as an extra long staple, meaning its fiber is at least 1⅜ inches long. Average fiber lengths for U.S. pima are 1½ to 1¾ inches compared with upland cotton's lengths of an inch to 1³⁄₃₂ inches.

The extra length allows pima to be woven into smooth, silky fabrics. "During the 1940's when pima was popular in men's dress shirts, it was referred to as the silk of cottons," says Jesse Curlee of the Supima (Superior Pima) Association of America, the commodity's research and promotional company.

Pima's use in clothing dwindled to a fraction of what it had been with the advent of manmade fibers in the 1950's and 1960's. But, Curlee says, its unique, luxurious qualities are helping pima make a comeback in clothing today. In addition, the extra long fiber gives pima a high tensile strength. The benefits are less breakage during weaving and stronger seams when the fabric is manufactured into clothing or household goods.

But there is a difference in price between pima and other cottons. Pima costs much more. Why? "Primarily," Townsend says, "because, if you plant pima and upland on comparable land, you'll get considerably lower yields for pima." The acreage in Arizona is a good example. Yields for upland cotton were 1,208 pounds per acre, while pima averaged 772 pounds an acre in 1983. "As a result, production costs per pound are higher for pima," Townsend says.

In 1982, average farm prices were 59 cents a pound for upland cotton but 99 cents per pound for pima. The price difference becomes more visible further along the marketing chain.

Translated into consumer dollars, the average retail price of a man's dress shirt made from 100-percent pima would be about $5 more than a similar shirt made from 100-percent upland cotton, according to Curlee. Not surprisingly, Curlee contends that, "the difference is worth the extra cost."

Some manufacturers don't see pima's price as an obstacle either. They say their products are sold in specialty and finer department stores where consumers expect to pay more and get more.

Designers and manufacturers have taken advantage of the American appetite for natural fibers. According to David Weiss, a vice president with J.P. Stevens and Co., the major domestic mills are incorporating more cotton (including pima) into their lines.

"Let's face it," Weiss says. "Even products we once considered 'cheap' are now expensive. The American public is willing to pay, but they want quality for their money."

Curlee and the pima industry are betting on pima's quality to fill the bill. Ultimately, consumer attitudes and lifestyles, along with new developments in textiles, will determine the future of pima cotton. □

[Based largely on information provided by USDA economist Terry Townsend of the National Economics Division, Economic Research Service.]

Allotments Are Out

Target prices and loan rates are something new to pima growers.

The old program of acreage allotments and marketing quotas, in use for nearly three decades, was phased out after the 1983 crop.

Now, pima growers will have a program similar to the one for upland cotton, including target prices, loan rates, and voluntary acreage reduction programs (when needed) to support farm incomes, stabilize prices, and control supplies.

One stipulation in setting the loan rate for pima is that it must be at least 150 percent of the loan rate for upland cotton. This primarily reflects the higher per-pound production costs for pima.

Details for the 1984 program: Pima's loan rate will be 82.5 cents per pound with the target price at 120 percent of the loan rate, or 99 cents per pound.

If average farm prices fall below the target price, the government gives farmers deficiency payments equal to the difference.

Further, farmers can use their crop as collateral if they apply for a government operating loan. Then, if market prices fall below the loan rate, they can forfeit their collateral to the government without being charged interest or penalties.

However, to be eligible for these benefits, pima producers must comply with acreage reduction requirements, if any are announced. For 1984, the acreage reduction requirement is 10 percent.

"By eliminating allotments and relating the loan rate for pima cotton to the loan rate for upland cotton, the government hopes to encourage pima production on the highest yielding acres and to increase consumption," Townsend says.

The new program is more flexible, he adds. Acreage reduction programs can be varied to account for changing market conditions, and loan rates can be adjusted down during years of slack demand.

Eastern Europe Turns Inward

Eastern Europe, one of America's fastest growing agricultural markets in the 1970's, has turned inward.

Eastern Europe ran up a tab of more than $2 billion for U.S. farm products in 1980 and came near the mark in 1981. Then, rather suddenly, nearly a decade's worth of growth melted away. U.S. sales slumped below the $1-billion level in each of the next 2 years. This year's total will be even lower.

The trade expansion of the 1970's was financed by a steady supply of credit from Western governments and commercial lenders—and encouraged by a spirit of detente. Eastern Europe pursued an official policy of improving diets, and imports were a key ingredient given the region's inadequate farm production.

In the early 1980's, however, the economic and political environment changed. Much of the debt accumulated in previous years began to mature, and repayments fell behind. New credit was sharply curtailed because of global recession and East-West tensions. East European governments are now restricting domestic consumption and emphasizing increased exports.

These changes have radically altered the trade outlook. Looking ahead to the remainder of the 1980's, USDA analysts see only "dim" prospects for a significant recovery in U.S. agricultural exports without a substantial inflow of new credit. In grains, particularly, the United States may have to settle for a smaller share of a smaller market, with sharpened competition from other suppliers.

***Eastern Europe, Agricultural Production and Trade Prospects Through 1990**, by Edward Cook, Robert Cummings, and Thomas Vankai. (Published February 1984; 53 pages of text and tables; GPO Stock Number 001-000-04405-2; $2.00.)*

Farm Population Trends

The trend toward fewer and larger U.S. farms has been accompanied by related shifts in the farm population.

Between 1975 and 1980, the total number of people living on America's farms declined, but farms with annual sales of $100,000 or more claimed a growing share of the farm population. The gain for larger farms was partly the result of real growth and consolidation in agriculture, and partly the result of inflation, which pushed many farms into larger sales classes.

Farm population figures for 1980 reveal the following:

- Larger farms (annual sales of $100,000 or more) had a half-million more residents than they did 5 years earlier. These farms accounted for 18 percent of the total farm population, compared with 11 percent in 1975.
- Midsize farms (sales of $20,000-$99,999) had 177,000 fewer residents than they did in 1975, and their share of the farm population declined 2 percentage points to 31 percent.
- Smaller farms (sales of less than $20,000) lost a half-million residents since 1975. Fifty percent of the U.S. farm population could still be found on smaller farms, but the share was down from 56 percent in 1975.

The total number of people residing on farms is listed at just over 7 million for June 1980, down 172,000 from the June 1975 tally.

The average size of farm-operator households dropped slightly to 3.3 persons in 1980 but remained well above the U.S. average of around 2.8 persons per household. Blacks and Hispanics made up 6 percent of the 1980 farm population.

***Farm Population Trends By Farm Characteristics, 1975-80,** by Vera J. Banks. (Published February 1984; 40 pages of text and data tables; GPO Stock Number 001-019-00333-2; $2.00.)*

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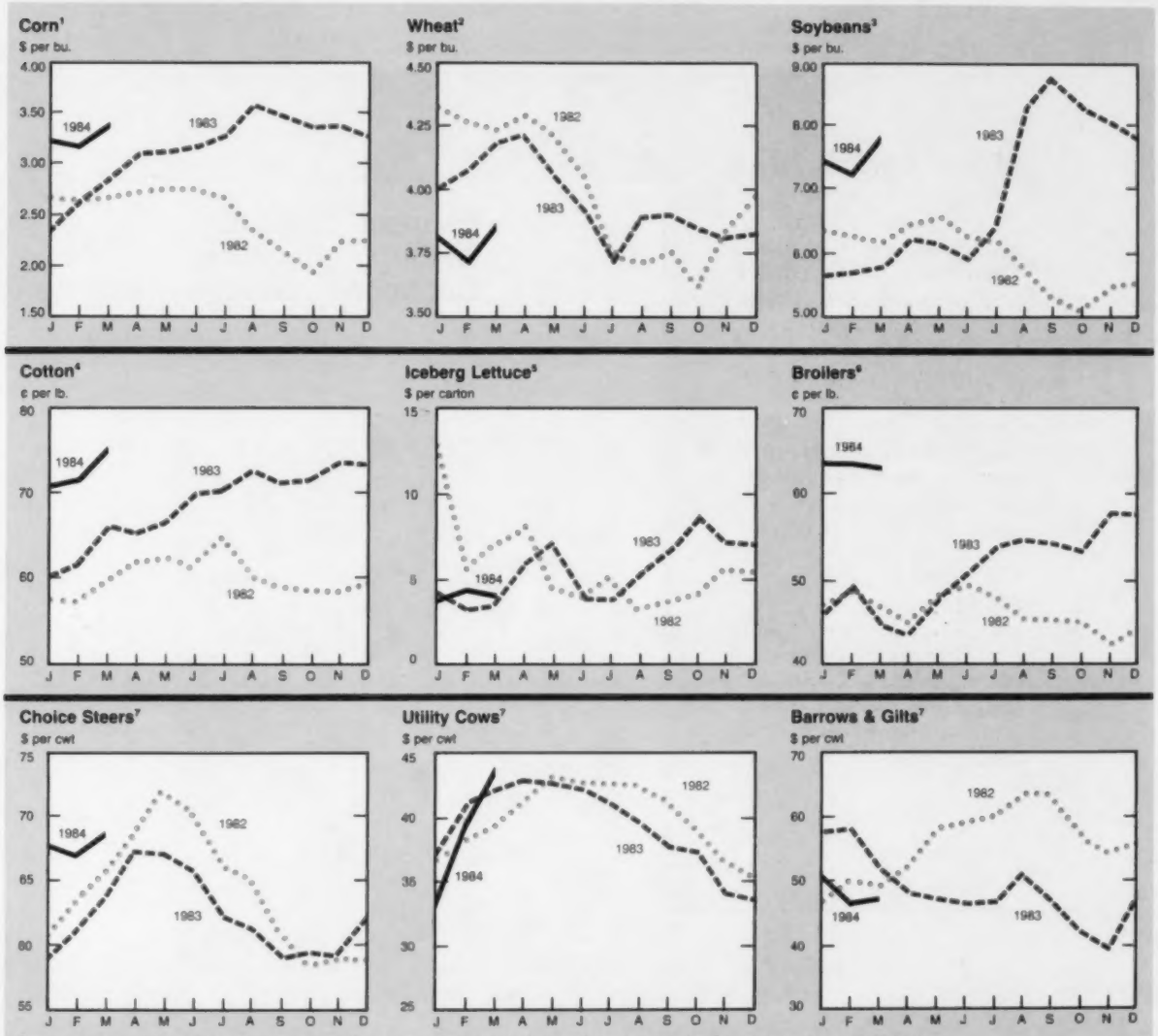
FARMLINE TRENDS

Monthly Price Monitor

USDA's index of farm prices rose 1.4% from February to March and was 9% above the year-earlier level. Wholesale market prices (below) increased for all commodities shown except lettuce and broilers. Corn rose 21¢ a bushel, wheat was up 14¢, and soybeans climbed 57¢. These gains pushed corn, wheat, and soybeans to the highest monthly prices since last fall. Cotton hit 74.9¢ a pound, the highest in 3 years. In the livestock area, choice steers rose about $1.50 per cwt, and utility cows gained more than $4. Barrows and gilts were up 64¢, but the March price was $4 below the year-earlier level.



[1]No. 2 yellow, Central Illinois. [2]No. 1 HRW, Kansas City. [3]No. 1 yellow, Central Illinois. [4]SLM 1-1/16" spot market price. [5]Standard carton 24's, California-Arizona. [6]Wholesale, New York. Monthly average prices since May 1983 may not be strictly comparable with prices for previous months. [7]Omaha.

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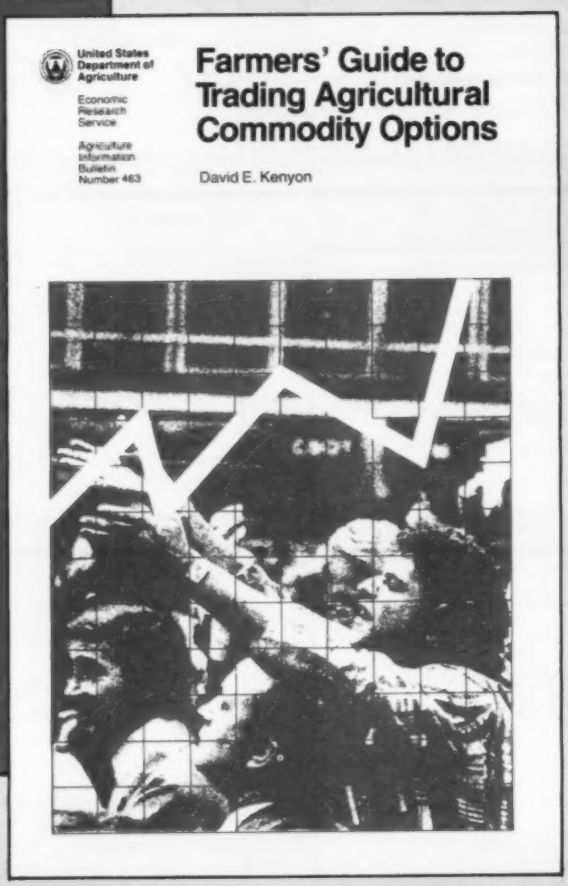
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